

CLAIMS:

1. An auxiliary operating device for manually operating a normally motor-operated closure between open and closed positions, the device comprising a shaft, a driving member mounted to said shaft and displaceable between an idle position and an operational position wherein the driving member is operatively coupled to the closure, and a manual actuator for first displacing said driving member from said idle position to said operational position and then driving said driving member in order to displace the closure, wherein said manual actuator is selectively mountable at either end portions of said shaft irrespectively of the position of said driving member on said shaft.
2. An auxiliary operating device as defined in claim 1, wherein said manual actuator is structurally isolated from said driving member, and wherein said manual actuator acts on said driving member via said shaft.
3. An auxiliary operating device as defined in claim 2, wherein said shaft is mounted to a support, and wherein said shaft is axially displaceable relative to said support.
4. An auxiliary operating device as defined in claim 3, wherein said manual actuator is adapted to drive said shaft in rotation.
5. An auxiliary operating device as defined in claim 4, wherein said manual actuator includes a pulley mounted for rotation with said shaft.
6. An auxiliary operating device as defined in claim 3, wherein a biasing member acts on said shaft to urge said driving member to said idle position thereof.

7. An auxiliary operating device as defined in claim 1, wherein said biasing member includes a spring mounted about the shaft between the support and a collar fixed on the shaft.

8. An auxiliary operating device as defined in claim 3, wherein a cam engaging member is mounted for rotation with the shaft, said cam engaging member being movable along a cam surface for moving said driving member between said idle position and said operational position.

9. An auxiliary operating device as defined in claim 8, wherein said cam is mounted to said shaft, and wherein a clutch acts on said cam to temporarily retain said cam against rotation to allow said manual actuator to axially displace said driving member from said idle position to said operational position.

10. An auxiliary operating device as defined in claim 9, wherein said clutch includes a spring blade extending about the cam to exert a radial friction thereon.

11. An auxiliary operating device as defined in claim 9, wherein said driving member includes a gear fixedly mounted to said shaft for rotational and axial movement therewith.

12. An auxiliary operating device as defined in claim 11, wherein said cam engaging member is mounted to said gear.

13. An auxiliary operating device as defined in claim 1, wherein the shaft is mounted to a support for rotational and axial movement with respect thereto, and wherein said shaft carries a cam and a cam engaging member, a first one of said cam and said cam engaging member being mounted for rotation with said shaft through operation of said manual actuator, and wherein a clutch is

provided for temporarily retaining a second one of said cam and said cam engaging member against rotation to first cause an angular movement between the cam and the cam engaging member followed by a joint rotation thereof with the shaft.

14. An auxiliary operating device as defined in claim 13, wherein the shaft is axially displaced through the interaction between the cam and the cam engaging member against a biasing force of a biasing member.

15. An auxiliary operating device for manually operating a normally motor-operated closure between open and closed positions, comprising a support, a shaft mounted to said support for axial and rotational movement, a driving member mounted to said shaft for joint movement therewith, said driving member being movable between an idle position and an operational position wherein the driving member is operatively coupled to the closure, a manual actuator for driving said shaft in rotation, a cam cooperating with a cam engaging member for axially displacing said shaft with said driving member as a result of a rotation imparted to said shaft by said manual actuator, and a clutch for temporarily drivingly disconnecting said shaft from one of said cam and said cam engaging member while allowing both said cam and said cam engaging member to rotate with the shaft once said driving member assumes said operational position thereof.

16. An auxiliary operating device as defined in claim 15, wherein said cam and said cam engaging member are mounted to said shaft independently of said manual actuator.